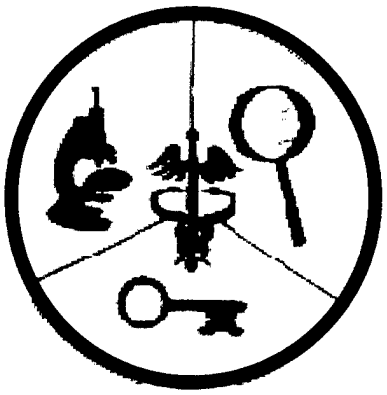

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BREAST CANCER STUDY
1997 PATIENT SURVEY

SUMMARY OF DATA EXTRACTED FROM PATIENTS' MEDICAL RECORDS

RP 00-002

MAY 2000

UNITED STATES ARMY
MEDICAL DEPARTMENT CENTER AND SCHOOL
FORT SAM HOUSTON, TEXAS 78234-6125

CENTER FOR
HEALTHCARE EDUCATION AND STUDIES
(CHES)

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13. ABSTRACT *(Maximum 200 words)*
This report presents an initial summary of data extracted from the medical records of breast cancer patients surveyed in 1997. The survey included all women diagnosed and/or treated for breast cancer at Brooke Army Medical Center, Fort Sam Houston (San Antonio), Texas, whose breast cancer was initially diagnosed in the period 1987-1997. Frequency tables and the results of Chi-square tests of medical data variables by race are presented for 907 white, African American, and Hispanic patients.

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INTRODUCTION

In 1997, the AMEDD Studies and Analysis Branch in the Center for Healthcare Education and Studies (CHES), US Army Medical Department Center and School, began a study entitled "Enhancing the DOD Automated Central Tumor Registry (ACTUR) Data to Develop More Precise Measures for Survival Analysis and Epidemiological Studies of Breast Cancer Patients." The first phase of the investigation was a mail survey of all breast cancer patients registered in the Brooke Army Medical Center (BAMC) Tumor Registry who met the following criteria: the patient was a female diagnosed and/or treated for breast cancer at BAMC whose cancer was initially diagnosed in the period 1987-1997. Details of the survey methodology and initial findings were summarized in a previous report.[1] The second phase of the study was the extraction and analysis of data from medical records of the surveyed patients and is the subject of the current report. Later phases of the study, based on the merger of the survey and medical data with records from the ACTUR database, will be presented in future reports.

METHOD

As discussed in a previous report,[1] a study population representing 96% of those surveyed, was retained for analysis. The study group (n=907) consisted of white, African American, and Hispanic women diagnosed and/or treated for breast cancer at BAMC, whose cancer was initially diagnosed in the period 1987-1997. At the time of the survey, 71% of the women were living (n=644), 29% were dead (n=258). By race, 714 were white (516 living, 198 dead), 121 were African American (77 living, 44 dead), and 67 were Hispanic (51 living, 16 dead).

A data collection form for recording the medical data on each of the surveyed patients was designed and evaluated. At the time the form was designed and printed, it was envisioned that most, if not all, of the data would be obtained from laboratory records and the form was given the title "Laboratory Collection Sheet" (See Appendix 1). However, once work was underway, it was found that the designated information was frequently not in the lab reports, but in other medical records. Therefore, hereafter any reference to the form or the extracted data will use the broader conotation "medical," not "lab."

The medical data forms were labeled with the patients' names and survey id numbers prior to fill-in of data. All forms were then completed by Certified Tumor Registrars (CTRs) from screening of BAMC medical registry records. Data collected included:

a. Estrogen receptor assay--whether positive, negative or unknown.

b. Progesterone receptor assay--whether positive, negative or unknown.

c. Cell type to include infiltrating duct (or intraductal), ductal, inflammatory, Paget's disease, lobular, adenocarcinoma, medullary, tubular, papillary, cystosarcoma (phyllodes tumor), mucinous, cribiform lymphoma, spindle cell or unknown.

d. Tumor size in centimeters (for staging of the cancer using the TNM system required by accrediting agencies--this is the T portion).

e. Nodal involvement--how many nodes were examined and of that number, how many nodes were positive (this is the N portion of the TNM system).

f. Metastatic stage (had the cancer spread to adjoining organs or to distant organs).

g. Stage (final or M category of the TNM system).

h. Adjuvant therapy administered to include tamoxifen, CMF, FAC, bone marrow transplant + harvest, Taxol, GCSF, 5-FU, adriamycin, cytoxan, methotrexate, none or unknown.

i. Radiation therapy administered to include palliative, curative, none or unknown.

j. Type of surgery to include lumpectomy, modified radical, implants, none, or unknown.

k. Breast location of the cancer, to include right, left, bilateral or unknown.

l. Previous primary--yes, no or unknown. (Note: If a woman had two occurrences of primary breast cancer during the study period, information on both incidences was extracted, and one record was created for each occurrence.)

m. Transfer of patient from another installation (using the American Hospital number).

After filling-in of the medical data forms was completed, Branch staff coded all data in preparation for digitization. Records for patients with only one occurrence of primary breast cancer during the study period, were coded "primary 1." For patients with two occurrences, the record with the earlier diagnosis date was coded as "primary 1," and the other record as "primary 2." Data entry and verification of the records were performed by a local vendor. The vendor provided a diskette containing a text file of the data plus an explanation of the file layout. After receipt of the diskette, Branch staff initially read and reviewed the text file on a PC for any problems noted by the data entry vendor and to check the general layout of the file. The text file was then transferred to a Unix workstation for conversion to a SAS data file (lab.ssd01). SAS formats and labels were created and stored for the medical data variables and preliminary summary analyses run to obtain initial information. A racial variable for the women in the study population was obtained from the ACTUR database and merged with the medical data file (output SAS data set: newmed1.ssd01, 907 observations, 42 variables). Frequency distributions were generated for each of the variables (except identification variables such as patient name and survey id number), and the effect of race examined using Chi-square analysis. Appendix 2 is an alphabetical listing of all variables with their SAS attributes from . Appendix 3 contains the SAS formats which define the coded, numeric values of the categorical variables.

RESULTS AND DISCUSSION

Notes: Results are presented for "primary 1" records only. All percentages shown in the tables are column percentages (e.g., in Table 1, 44.09% of whites had breast cancer only in the right breast). Results are presented for all Chi-square tests that were performed, even if the test may have been invalid. A superscript letter (a,b,c,d,e,f) next to a Chi-square probability identifies the tests which may be invalid; the letter indicates the percentage of cells in the cross-tabulation having expected counts less than 5: a = 21-25%, b = 26-35%, c = 36-45%, d = 46-55%, e = 56-65%, f >65%.

Breast Location and TNM Staging Components (Table 1)

Breast location of the cancer did not differ by race. About 91% of all women had cancer in only one breast, with right and left occurrences about equal. The remaining 9% of women either had cancer in both breasts or no indication of location was found in the medical records. Concerning the three factors of TNM Staging (tumor size, node category, and metastasis status), only tumor size varied significantly by race. Whites had the largest proportion of T1 cancers (43%) and the smallest proportion of T4 cancers (5%). African Americans had the least Tis (5%) and the most T2, while Hispanics suffered the least T3 cancers.

Table 1. Breast location and TNM staging components by race.

Variable	White No.	(%)	African American No.	(%)	Hispanic No.	(%)	Total No.	(%)	P*>X²
Breast Location									0.205
Right	317	(44.09)	56	(46.28)	33	(49.25)	406	(44.76)	
Left	329	(45.76)	55	(45.45)	31	(46.27)	415	(45.76)	
Bilateral	38	(5.29)	1	(0.83)	1	(1.49)	40	(4.41)	
Unknown	35	(4.87)	9	(7.44)	2	(2.99)	46	(5.07)	
Tumor Size†									0.003
Tis	99	(13.77)	6	(4.96)	8	(11.94)	113	(12.46)	
T1	307	(42.70)	41	(33.88)	23	(34.33)	371	(40.90)	
T2	187	(26.01)	44	(36.36)	21	(31.34)	252	(27.78)	
T3	47	(6.54)	8	(6.61)	2	(2.99)	57	(6.28)	
T4	37	(5.15)	14	(11.57)	9	(13.43)	60	(6.62)	
Unknown	42	(5.84)	8	(6.61)	4	(5.97)	54	(5.95)	
Node Category†									0.198[d]
N0	439	(61.06)	60	(49.59)	33	(49.25)	532	(58.65)	
N1	245	(34.08)	56	(46.28)	31	(46.27)	332	(36.60)	
N2	5	(0.70)	0	(0.00)	0	(0.00)	5	(0.55)	
N3	1	(0.14)	0	(0.00)	0	(0.00)	1	(0.11)	
Unknown	29	(4.03)	5	(4.13)	3	(4.48)	37	(4.08)	
Metastasis Status†									0.977[a]
M0	649	(90.26)	110	(90.91)	59	(88.06)	818	(90.19)	
M1	36	(5.01)	6	(4.96)	4	(5.97)	46	(5.07)	
Unknown	34	(4.73)	5	(4.13)	4	(5.97)	43	(4.74)	

*A superscript letter (a,b,c,d,e,f) next to a Chi-square probability identifies the tests which may be invalid; the letter indicates the percentage of cells in the cross-tabulation having expected counts less than 5: a = 21-25%, b = 26-35%, c = 36-45%, d = 46-55%, e = 56-65%, f >65%.

†TNM staging from *American Cancer Society textbook of clinical oncology*, 2nd ed. Murphy GP, Lawrence W, Jr, Lenhard RE, Jr, editors. Atlanta: The American Cancer Society, 1995.

Pathologic Stage, Tumor Cell Type, and Estrogen/Progesterone Receptor Status (Table 2)

Pathologic stage varied significantly with race, with more whites having stages 0 and I, more African Americans and Hispanics having stage II, more African Americans having stage III and more Hispanics having stage IV. Tumor cell type showed no significant differences by race, but the Chi-square test was probably not valid due to the large number of small cell counts.

However, note that in the predominant category, infiltrating duct, African Americans have a 10% higher occurrence rate compared to whites and Hispanics (80% vs 71% and 70%). Estrogen receptor status showed a highly significant difference by race. More than 50% of white and Hispanic women had positive assays compared to only 37% of African American women. Progesterone receptor status did not vary with race; overall, about 40% of women had positive assays and 28% had negative assays.

Table 2. Pathologic stage, tumor cell type, and estrogen/progesterone receptor status by race.

Variable	White No.	(%)	African American No.	(%)	Hispanic No.	(%)	Total No.	(%)	P*>X²
Pathologic Stage									0.048
0	86	(11.96)	5	(4.13)	7	(10.45)	98	(10.80)	
I	234	(32.55)	32	(26.45)	15	(22.39)	281	(30.98)	
II	254	(35.33)	48	(39.67)	27	(40.30)	329	(36.27)	
III	73	(10.15)	23	(19.01)	9	(13.43)	105	(11.58)	
IV	49	(6.82)	8	(6.61)	7	(10.45)	64	(7.06)	
Unknown	23	(3.20)	5	(4.13)	2	(2.99)	30	(3.31)	
Tumor Cell Type									0.459[f]
Infiltrating duct	508	(70.65)	97	(80.17)	47	(70.15)	652	(71.89)	
Ductal	65	(9.04)	4	(3.31)	6	(8.96)	75	(8.27)	
Inflammatory	10	(1.39)	2	(1.65)	3	(4.48)	15	(1.65)	
Paget's disease	2	(0.28)	0	(0.00)	0	(0.00)	2	(0.22)	
Lobular	51	(7.09)	4	(3.31)	2	(2.99)	57	(6.28)	
Adenocarcinoma	25	(3.48)	3	(2.48)	5	(7.46)	33	(3.64)	
Medullary	7	(0.97)	4	(3.31)	0	(0.00)	11	(1.21)	
Tubular	10	(1.39)	0	(0.00)	0	(0.00)	10	(1.10)	
Papillary	18	(2.50)	4	(3.31)	3	(4.48)	25	(2.76)	
Cystosarcoma	3	(0.42)	1	(0.83)	0	(0.00)	4	(0.44)	
Cribiform	1	(0.14)	0	(0.00)	0	(0.00)	1	(0.11)	
Lymphoma	4	(0.56)	0	(0.00)	0	(0.00)	4	(0.44)	
Spindle cell	1	(0.14)	0	(0.00)	0	(0.00)	1	(0.11)	
Unknown	13	(1.81)	2	(1.65)	1	(1.49)	16	(1.76)	
Missing	1	(0.14)	0	(0.00)	0	(0.00)	1	(0.11)	
Estrogen Receptor Status									0.001
Negative	128	(17.80)	42	(34.71)	14	(20.90)	184	(20.29)	
Positive	369	(51.32)	45	(37.19)	37	(55.22)	451	(49.72)	
Unknown	222	(30.88)	34	(28.10)	16	(23.88)	272	(29.99)	
Progesterone Receptor Status									0.134[a]
Negative	187	(26.01)	46	(38.02)	24	(35.82)	257	(28.34)	
Positive	294	(40.89)	40	(33.06)	25	(37.31)	359	(39.58)	
Unknown	237	(32.96)	35	(28.93)	18	(26.87)	290	(31.97)	
Missing	1	(0.14)	0	(0.00)	0	(0.00)	1	(0.11)	

*A superscript letter (a,b,c,d,e,f) next to a Chi-square probability identifies the tests which may be invalid; the letter indicates the percentage of cells in the cross-tabulation having expected counts less than 5: a = 21-25%, b = 26-35%, c = 36-45%, d = 46-55%, e = 56-65%, f >65%.

Treatments (Surgery, Radiation Therapy, Adjuvant Therapies) (Tables 3 and 4)

Surgery across the three racial groups was equivalent under the military health care system. Overall, approximately 63% of women had modified radical mastectomies, 22% had lumpectomies, 8% had implants, and only 3% had no surgery. Even though radiation therapy was found to vary significantly with race, a similar pattern in curative versus pallative treatment was observed, with 3-4 times as many women having had curative compared to pallative radiation therapy.

Table 3. Surgery and radiation therapy by race.

Variable	White No.	White (%)	African American No.	African American (%)	Hispanic No.	Hispanic (%)	Total No.	Total (%)	P*>X²
Type of Surgery									0.932[b]
Lumpectomy	157	(21.84)	29	(23.97)	14	(20.90)	200	(22.05)	
Mod radical	458	(63.70)	76	(62.81)	42	(62.69)	576	(63.51)	
Implants	59	(8.21)	6	(4.96)	6	(8.96)	71	(7.83)	
None	20	(2.78)	5	(4.13)	3	(4.48)	28	(3.09)	
Unknown	25	(3.48)	5	(4.13)	2	(2.99)	32	(3.53)	
Radiation Therapy									0.028
Pallative	60	(8.34)	13	(10.74)	7	(10.45)	80	(8.82)	
Curative	228	(31.71)	40	(33.06)	18	(26.87)	286	(31.53)	
None	369	(51.32)	49	(40.50)	29	(43.28)	447	(49.28)	
Unknown	58	(8.07)	19	(15.70)	12	(17.91)	89	(9.81)	
Missing	4	(0.56)	0	(0.00)	1	(1.49)	5	(0.55)	

*A superscript letter (a,b,c,d,e,f) next to a Chi-square probability identifies the tests which may be invalid; the letter indicates the percentage of cells in the cross-tabulation having expected counts less than 5: a = 21-25%, b = 26-35%, c = 36-45%, d = 46-55%, e = 56-65%, f >65%.

There was noticeable variation in the adjuvant therapies for women in the three racial groups. Approximately 29% of white women received no adjuvant therapy compared with 18% of Hispanics and 13% of African Americans. Overall and by race, the most common adjuvant therapies for women in the military health care system were (a) tamoxifen; (b) fluorouracil, doxorubicin (adriamycin), and cyclophosphamide regimen (FAC); and (c) cyclophosphamide, methotrexate, and fluorouracil regimen (CMF). However, the distribution of these therapies varied by race. For white women, the therapies in order of use (Admin 1) were Tamoxifen (26%), FAC (17%), and (CMF) (13%); for African Americans, FAC (27%), CMF (20%), and Tamoxifen (17%); and for Hispanics, FAC (25%), Tamoxifen (19%), and CMF (16%). Two adjuvant therapies were administered to 31% of whites compared to 46% of African Americans and 48% of Hispanics. If a second adjuvant therapy was given, Tamoxifen was most common for whites and Hispanics compared to Cytoxan for African Americans. Three adjuvant therapies were administered to 16.1% of whites, 19% of Hispanics, and 20% of African Americans. Less than 8% of women in each racial group had more than three adjuvant therapies.

Table 4. Adjuvant therapy by race.

Variable*	White No.	(%)	African American No.	(%)	Hispanic No.	(%)	Total No.	(%)	P†>X²
Adjuvant Therapy Admin 1									0.001[d]
Tamoxifen	185	(25.73)	20	(16.53)	13	(19.40)	218	(24.04)	
CMF	95	(13.21)	24	(19.83)	11	(16.42)	130	(14.33)	
FAC	124	(17.25)	33	(27.27)	17	(25.37)	174	(19.18)	
BMT + harvest	12	(1.67)	0	(0.00)	1	(1.49)	13	(1.43)	
Taxol	9	(1.25)	1	(0.83)	0	(0.00)	10	(1.10)	
GCSF	3	(0.42)	1	(0.83)	0	(0.00)	4	(0.44)	
5 FU	5	(0.70)	0	(0.00)	0	(0.00)	5	(0.55)	
Adriamycin	34	(4.73)	18	(14.88)	9	(13.43)	61	(6.73)	
Cytoxan	13	(1.81)	3	(2.48)	1	(1.49)	17	(1.87)	
Methotrexate	0	(0.00)	1	(0.83)	0	(0.00)	1	(0.11)	
None	209	(29.07)	16	(13.22)	12	(17.91)	237	(26.13)	
Unknown	30	(4.17)	4	(3.31)	3	(4.48)	37	(4.08)	
Adjuvant Therapy Admin 2									0.007[e]
Tamoxifen	78	(10.85)	10	(8.26)	11	(16.42)	99	(10.92)	
CMF	18	(2.50)	2	(1.65)	2	(2.99)	22	(2.43)	
FAC	26	(3.62)	10	(8.26)	4	(5.97)	40	(4.41)	
BMT + harvest	13	(1.81)	3	(2.48)	1	(1.49)	17	(1.87)	
Taxol	25	(3.48)	7	(5.79)	4	(5.97)	36	(3.97)	
GCSF	10	(1.39)	1	(0.83)	2	(2.99)	13	(1.43)	
5 FU	3	(0.42)	1	(0.83)	0	(0.00)	4	(0.44)	
Adriamycin	12	(1.67)	4	(3.31)	0	(0.00)	16	(1.76)	
Cytoxan	34	(4.73)	18	(14.88)	8	(11.94)	60	(6.62)	
Methotrexate	2	(0.28)	0	(0.00)	0	(0.00)	2	(0.22)	
None	1	(0.14)	0	(0.00)	0	(0.00)	1	(0.11)	
Missing	497	(69.12)	65	(53.72)	35	(52.24)	597	(65.82)	
Adjuvant Therapy Admin 3									0.001[e]
Tamoxifen	28	(3.89)	10	(8.26)	4	(5.97)	42	(4.63)	
CMF	3	(0.42)	0	(0.00)	0	(0.00)	3	(0.33)	
FAC	12	(1.67)	3	(2.48)	0	(0.00)	15	(1.65)	
BMT + harvest	28	(3.89)	2	(1.65)	7	(10.45)	37	(4.08)	
Taxol	27	(3.76)	1	(0.83)	1	(1.49)	29	(3.20)	
GCSF	3	(0.42)	5	(4.13)	0	(0.00)	8	(0.88)	
5 FU									
Adriamycin	1	(0.14)	2	(1.65)	1	(1.49)	4	(0.44)	
Cytoxan	2	(0.28)	0	(0.00)	0	(0.00)	2	(0.22)	
Methotrexate	12	(1.67)	1	(0.83)	0	(0.00)	13	(1.43)	
None	2	(0.28)	0	(0.00)	0	(0.00)	2	(0.22)	
Missing	601	(83.59)	97	(80.17)	54	(80.60)	752	(82.91)	

*CMF= cyclophosphamide, methotrexate, fluorouracil regimen; FAC= fluorouracil, doxorubicin (adriamycin), cyclophosphamide regimen;, BMT=bone marrow transplant; GCSF= granulocyte colony-stimulating factor (filgrastim); 5 FU= 5-fluorouracil.
†A superscript letter (a,b,c,d,e,f) next to a Chi-square probability identifies the tests which may be invalid; the letter indicates the percentage of cells in the cross-tabulation having expected counts less than 5: a = 21-25%, b = 26-35%, c = 36-45%, d = 46-55%, e = 56-65%, f >65%.

Table 4. Adjuvant therapy by race. (cont.)

Variable	White No.	(%)	African American No.	(%)	Hispanic No.	(%)	Total No.	(%)	P>X²
Adjuvant Therapy Admin 4									0.175[a]
Tamoxifen	12	(1.67)	1	(0.83)	2	(2.99)	15	(1.65)	
CMF	1	(0.14)	0	(0.00)	0	(0.00)	1	(0.11)	
FAC	1	(0.14)	0	(0.00)	0	(0.00)	1	(0.11)	
BMT + harvest	22	(3.06)	2	(1.65)	1	(1.49)	25	(2.76)	
Taxol	6	(0.83)	2	(1.65)	0	(0.00)	8	(0.88)	
GCSF	2	(0.28)	3	(2.48)	0	(0.00)	5	(0.55)	
5 FU	1	(0.14)	0	(0.00)	0	(0.00)	1	(0.11)	
Adriamycin	0	(0.00)	1	(0.83)	1	(1.49)	2	(0.22)	
Cytoxan	3	(0.42)	0	(0.00)	0	(0.00)	3	(0.33)	
Missing	671	(93.32)	112	(92.56)	63	(94.03)	846	(93.27)	
Adjuvant Therapy Admin 5									0.860[e]
Tamoxifen	1	(0.14)	1	(0.83)	0	(0.00)	2	(0.22)	
BMT + harvest	4	(0.56)	1	(0.83)	0	(0.00)	5	(0.55)	
GCSF	3	(0.42)	0	(0.00)	0	(0.00)	3	(0.33)	
5 FU	1	(0.14)	0	(0.00)	0	(0.00)	1	(0.11)	
Missing	710	(98.75)	119	(98.35)	67	(100.00)	896	(98.79)	
Adjuvant Therapy Admin 6									0.553[d]
BMT + harvest	2	(0.28)	1	(0.83)	0	(0.00)	3	(0.33)	
Missing	717	(99.72)	120	(99.17)	67	(100.00)	904	(99.67)	

*CMF= cyclophosphamide, methotrexate, fluorouracil regimen; FAC= fluorouracil, doxorubicin (adriamycin), cyclophosphamide regimen;, BMT=bone marrow transplant; GCSF= granulocyte colony-stimulating factor (filgrastim); 5 FU= 5-fluorouracil.
†A superscript letter (a,b,c,d,e,f) next to a Chi-square probability identifies the tests which may be invalid; the letter indicates the percentage of cells in the cross-tabulation having expected counts less than 5: a = 21-25%, b = 26-35%, c = 36-45%, d = 46-55%, e = 56-65%, f >65%.

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APPENDIX 1

LABORATORY COLLECTION SHEET

LABORATORY COLLECTION SHEET

1. Patient Name_____
   Last First MI

2. Sponsor Social Security Number_____

1. ER/PR Receptor status of tumor._____

3. _____

_____

4. _____

_____

5. 2. Tumor histology (size, nodal status, differentiation, etc.)._____

6. _____

7. _____

8. _____

9. 3. Adjuvant therapy administered._____

_____

_____

10. _____

_____

4. Radiation therapy administered._____

_____

11. _____

_____

_____

5. Type of surgery._____

12. ( ) modified radical

13. ( ) breast conservation

6. Additional remarks._____

_____

14. _____

15. _____

_____

APPENDIX 2

ALPHABETIC LIST OF VARIABLES
IN
THE SAS MEDICAL DATA SET

Appendix 2. Alphabetic List of Variables in the SAS Medical Data Set*

Variable	#	Type	Len	Pos	Format	Label
0ADJUV1	3	Num	8	253	ADJVFMT.	#1 Adjuvant Therpy Admin
1ADJUV2	3	Num	8	261	ADJVFMT.	#2 Adjuvant Therpy Admin
2ADJUV3	3	Num	8	269	ADJVFMT.	#3 Adjuvant Therpy Admin
ADJUV4	33	Num	8	277	ADJVFMT.	#4 Adjuvant Therpy Admin
ADJUV5	34	Num	8	285	ADJVFMT.	#5 Adjuvant Therpy Admin
ADJUV6	35	Num	8	293	ADJVFMT.	#6 Adjuvant Therpy Admin
ADJUV12	11	Num	8	102	ADJVFMT.	2nd Prim #1 Adjuv ther admin
ADJUV22	12	Num	8	110	ADJVFMT.	2nd Prim #2 Adjuv ther admin
ADJUV32	13	Num	8	118	ADJVFMT.	2nd Prim #3 Adjuv ther admin
ADJUV42	14	Num	8	126	ADJVFMT.	2nd Prim #4 Adjuv ther admin
ADJUV52	15	Num	8	134	ADJVFMT.	2nd Prim #5 Adjuv ther admin
ADJUV62	16	Num	8	142	ADJVFMT.	2nd Prim #6 Adjuv ther admin
BRLOC	38	Num	8	317	BRLOCFMT.	Breast Location
BRLOC2	19	Num	8	166	BRLOCFMT.	Breast Location-#2
CELLTYP2	6	Num	8	62	CELLFMT.	Tumor Cell Type-#2
CELLTYPE	25	Num	8	213	CELLFMT.	Tumor Cell Type
ERA	23	Num	8	197	RCPTRFMT.	Estrogen Receptor Status
ERA2	4	Num	8	46	RCPTRFMT.	Estrogen Receptor Stat-#2
ETHN	42	Num	8	348		Ethnicity- W H B
ETHNN	43	Num	8	356		Ethnicity- W B H
MSTAT	28	Num	8	237	MSTATFMT.	Metastasis Status
MSTAT2	9	Num	8	86	MSTATFMT.	Metastasis Status-#2
NODECAT	27	Num	8	229	NODEFMT.	Node Category
NODECAT2	8	Num	8	78	NODEFMT.	Node Category-#2
OTHRCN22	20	Num	8	174		
OTHRCNC2	40	Num	8	332		Previous Primary-#2
PRA	24	Num	8	205	RCPTRFMT.	Progest. Receptor Status
PRA2	5	Num	8	54	RCPTRFMT.	Progest. Receptor Stat-#2
PRIMN	22	Num	8	189		# Breast Primaries
PRIMN2	41	Num	8	340		
PRIMN2Z	3	Num	7	39		Secendary Breast Primary
PTID	2	Char	36	3		Patient ID number
RADIOTH	36	Num	8	301	RADIOFMT.	Radiation Therapy
RADIOTH2	17	Num	8	150	RADIOFMT.	Radiation Therapy-#2
SID	1	Char	3	0		Survey ID number
STAGEP	29	Num	8	245	PATHFMT.	Pathologic Stage
STAGEP2	10	Num	8	94	PATHFMT.	Pathologic Stage-#2
SURGTYP2	18	Num	8	158		Type of Surgery-#2
SURGTYPE	37	Num	8	309	SURGLFMT.	Type of Surgery
TRANSFER	39	Char	7	325	$AHACDFM.	Transfer AHA Hosp Code
TRANSFR2	21	Char	7	182		Transfer AHA Hosp Code-#2
TSIZE	26	Num	8	221	TSIZEFMT.	Tumor Size
TSIZE2	7	Num	8	70	TSIZEFMT.	Tumor Size-#2

*Output from the SAS System Proc CONTENTS (June 30, 2000).

DEPARTMENT OF THE ARMY
ACADEMY OF HEALTH SCIENCES, UNITED STATES ARMY
FORT SAM HOUSTON, TEXAS 78234-6100

8 August 2000

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Kay D. Livingston

KAY D. LIVINGSTON
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APPENDIX 3

SAS FORMATS
WHICH DEFINE NUMERIC VALUES
OF CATEGORICAL VARIALBLES

FORMAT NAME: ADJVFMT LENGTH: 13 NUMBER OF VALUES: 12

START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
1	1	Tamoxifen
2	2	CMF
3	3	FAC
4	4	BMT + harvest
5	5	Taxol
6	6	GCSF
7	7	5 FU
8	8	Adriamycin
9	9	Cytoxan
10	10	Methotrexate
11	11	None
99	99	Unknown

FORMAT NAME: BRLOCFMT LENGTH: 9 NUMBER OF VALUES: 4

START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
1	1	Right
2	2	Left
3	3	Bilateral
9	9	Unknown

FORMAT NAME: CELLFMT LENGTH: 14 NUMBER OF VALUES: 15

START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
1	1	Infilt duct
2	2	Ductal
3	3	Inflammatory
4	4	Paget's diseas
5	5	Lobular
6	6	Adenocarcinoma
7	7	Medullary
8	8	Tubular
9	9	Papillary
10	10	Cystosarcoma
11	11	Mucinous ca
12	12	Cribiform
13	13	Lymphoma
14	14	Spindle cell
99	99	Unknown

FORMAT NAME: MSTATFMT LENGTH: 15 NUMBER OF VALUES: 3

START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
0	0	No distant mets
1	1	Distant mets
9	9	Unknown

FORMAT NAME: NODEFMT LENGTH: 37 NUMBER OF VALUES: 5

START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
0	0	No regional lymph node mets
1	1	Mets to movabl.ipsil.axil lymph nodes
2	2	Mets to ipsil.axil nodes fix. to othr
3	3	Mets to ipsil.int. mamm node structur
9	9	Unknown

FORMAT NAME: OTHR2CNC LENGTH: 7 NUMBER OF VALUES: 3

START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
1	1	Yes
2	2	No
9	9	Unknown

FORMAT NAME: PATHFMT LENGTH: 9 NUMBER OF VALUES: 6

START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
0	0	Stage 0
1	1	Stage I
2	2	Stage II
3	3	Stage III
4	4	Stage IV
9	9	Unknown

FORMAT NAME: PRIMNF LENGTH: 17 NUMBER OF VALUES: 2	
START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
1	1	Breast primary
2	2	Secondary primary

FORMAT NAME: RACEN LENGTH: 8 NUMBER OF VALUES: 3	
START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
1	1	White
2	2	Black
3	3	Hispanic

FORMAT NAME: RADIOFMT LENGTH: 9 NUMBER OF VALUES: 4	
START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
1	1	Pallative
2	2	Curative
3	3	None
9	9	Unknown

FORMAT NAME: RCPTRFMT LENGTH: 8 NUMBER OF VALUES: 3	
START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
0	0	Negitive
1	1	Positive
9	9	Unknown

FORMAT NAME: SURGLFMT LENGTH: 11 NUMBER OF VALUES: 5

START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
1	1	Lumpectomy
2	2	Mod radical
3	3	Implants
4	4	None
9	9	Unknown

FORMAT NAME: TSIZEFMT LENGTH: 22 NUMBER OF VALUES: 6

START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
0	0	In situ
1	1	2 cm or less
2	2	> 2 cm but not > 5 cm
3	3	> 5cm
4	4	Any w/ext ch.wall/skin
9	9	Unknown

FORMAT NAME: $AHACDFM LENGTH: 26 NUMBER OF VALUES: 129

START	END	LABEL (VER. 6.11 14JUN00:14:43:26)
6110385	6110385	Loring AFB USAF Hosp
6120355	6120355	Pease AFB USAF Hosp
6140935	6140935	Cutler Ar Com Hosp
6150090	6150090	Newport Naval Hosp
6160495	6160495	Groton Naval Hosp
6213995	6213995	Plattsburgh AFB USAF Hosp
6214407	6214407	Griffiss AFB USAF Hosp
6215300	6215300	Keller Ar Com Hosp
6220300	6220300	Walson Ar Com Hosp
6220310	6220310	Patterson Ar Com Hosp
6232310	6232310	Philadelphia Naval Hosp
6310015	6310015	Dover AFB USAF Hosp
6320360	6320360	Bethesda Naval Hosp
6320390	6320390	Malcomb Grow Med Cen
6320510	6320510	Kimbrough Ar Com Hosp
6320710	6320710	Patuxent Riv. NAS Nav.Hosp
6330260	6330260	Walter Reed Ar Med Cen
6333333	6333333	Armed Forces Inst of Path.

FORMAT NAME: $AHACDFM LENGTH: 26 NUMBER OF VALUES: 129

START	END	LABEL (CONT'D)
6340090	6340090	Kenner Ar Com Hosp
6340240	6340240	Dewitt Ar Com Hosp
6340250	6340250	McDonald Ar Com Hosp
6340335	6340335	Langley AFB USAF Hosp
6340750	6340750	Portsmouth NS Naval Hosp
6360250	6360250	Camp Lejeune Naval Hosp
6360345	6360345	Cherry Point MCAS Nav.Hosp
6360530	6360530	Womack Ar Com Hosp
6360627	6360627	Seymour-Johnson AFB USAF H
6370055	6370055	Beaufort MCAS Naval Hosp
6370280	6370280	Moncrief Ar Com Hosp
6370480	6370480	Myrtle Beach AFB USAF Hosp
6370490	6370490	Charleston NS Naval Hosp
6370645	6370645	Shaw AFB USAF Reg Hosp
6380375	6380375	Eisenhower Ar Med Cen
6380378	6380378	Winn Ar Com Hosp
6380580	6380580	Martin Ar Com Hosp
6380770	6380770	Robins AFB USAF Hosp
6381195	6381195	Moody AFB USAF Hosp
6390096	6390096	Patrick AFB USAF Hosp
6390303	6390303	Homestead AFB USAF Hosp
6390410	6390410	Jacksonville NAS Nav. Hosp
6390715	6390715	Orlando NTC Naval Hosp
6390790	6390790	Tyndall AFB USAF Hosp
6390840	6390840	Pensacola NAS Naval Hosp
6391102	6391102	MacDill AFB USAF Reg Hosp
6391118	6391118	Eglin AFB USAF Reg Hosp
6411218	6411218	Wright-Patterson Med Cen
6420385	6420385	Hawley Ar Com Hosp
6430205	6430205	Scott Med Cen
6431820	6431820	Great Lakes NTC Naval Hosp
6432720	6432720	Chanute AFB USAF Hosp
6441535	6441535	K.I. Sawyer AFB USAF Hosp
6442015	6442015	Wurtsmith AFB USAF Hosp
6510175	6510175	Blanchfield Ar Com Hosp
6510180	6510180	Ireland Ar Com Hosp
6520840	6520840	Millington NAS Naval Hosp
6530316	6530316	Lyster Ar Com Hosp
6530450	6530450	Noble Ar Com Hosp
6530525	6530525	Fox Ar Com Hosp
6530735	6530735	Maxwell AFB USAF Hosp
6540060	6540060	Keesler Med Cen
6540204	6540204	Columbus AFB USAF Hosp
6630195	6630195	Leonard Wood Ar Com Hosp
6631295	6631295	Whiteman AFB USAF Hosp

FORMAT NAME: $AHACDFM LENGTH: 26 NUMBER OF VALUES: 129
MIN LENGTH: 1 MAX LENGTH: 40 DEFAULT LENGTH 26 FUZZ: 0

START	END	LABEL (CONT'D)
6640251	6640251	Grand Forks AFB USAF Hosp
6640335	6640335	Minot AFB USAF Reg Hosp
6650505	6650505	Ellsworth AFB USAF Hosp
6660730	6660730	Ehrling Bergquist Hosp
6670230	6670230	Munson Ar Com Hosp
6670250	6670250	Irwin Ar Com Hosp
6671140	6671140	McConnell AFB USAF Hosp
6710057	6710057	Blytheville AFB USAF Hosp
6710313	6710313	Little Rock AFB USAF Hosp
6720060	6720060	England AFB USAF Hosp
6720241	6720241	Bayne-Jones Ar Com Hosp
6720870	6720870	Barksdale AFB USAF Hosp
6730025	6730025	Altus AFB USAF Hosp
6730385	6730385	Tinker AFB USAF Hosp
6730410	6730410	Reynolds Ar Com Hosp
6730835	6730835	Tinker AFB USAF Hosp
6740033	6740033	Dyess AFB USAF Hosp
6740210	6740210	Bergstrom AFB USAF Hosp
6740780	6740780	Corpus Christi NAS NavHosp
6741138	6741138	Laughlin AFB USAF Hosp
6741320	6741320	Wm Beaumont Ar Med Cen
6741375	6741375	Darnall Ar Com Hosp
6741380	6741380	Brooke Ar Med Cen
6741485	6741485	Carswell AFB USAF Reg Hosp
6742378	6742378	Reese AFB USAF Hosp
6743125	6743125	Wilford Hall Med Cen
6743765	6743765	Sheppard AFB USAF Reg Hosp
6810255	6810255	Malmstrom AFB USAF Hosp
6820235	6820235	Mountain Home AFB USAF Hos
6830055	6830055	F.E. Warren AFB USAF Hosp
6840090	6840090	Evans Ar Com Hosp
6840310	6840310	Fitzsimons Ar Med Cen
6840945	6840945	USAF Academy Hosp
6850005	6850005	Holloman AFB USAF Hosp
6850075	6850075	Kirtland AFB USAF Hosp
6850155	6850155	Cannon AFB USAF Hosp
6860030	6860030	Williams AFB USAF Hosp
6860095	6860095	Raymond Bliss Ar Com Hosp
6860300	6860300	Luke AFB USAF Hosp
6860515	6860515	Davis-Monthan AFB USAF Hos
6870095	6870095	Hill AFB USAF Hosp
6880063	6880063	Nellis AFB USAF Hosp
6910120	6910120	Bremerton Naval Hosp
6910443	6910443	Oak Harbor Naval Hosp

FORMAT NAME: $AHACDFM LENGTH: 26 NUMBER OF VALUES: 129			
MIN LENGTH: 1 MAX LENGTH: 40 DEFAULT LENGTH 26 FUZZ: 0			
START	END	LABEL	(CONT'D)
6911003	6911003	Fairchild AFB USAF Hosp	
6911030	6911030	Madigan Ar Med Cen	
6930235	6930235	Weed Ar Com Hosp	
6930735	6930735	David Grant Med Cen	
6930760	6930760	Silas B. Hays Ar Com Hosp	
6931186	6931186	Lemoore NAS Naval Hosp	
6931310	6931310	Vandenberg AFB USAF Hosp	
6931371	6931371	Long Beach NS Naval Hosp	
6931885	6931885	Beale AFB USAF Hosp	
6931925	6931925	Castle AFB USAF Hosp	
6932033	6932033	Edwards AFB USAF Hosp	
6932250	6932250	Oakland NS Naval Hosp	
6932270	6932270	Camp Pendleton Naval Hosp	
6932625	6932625	March AFB USAF Reg Hosp	
6932700	6932700	Mather AFB USAF Hosp	
6932840	6932840	San Diego Naval Hosp	
6932970	6932970	Letterman Ar Med Cen	
6933845	6933845	George AFB USAF Hosp	
6940055	6940055	Elmendorf AFB USAF Hosp	
6940066	6940066	Bassett Ar Com Hosp	
6950410	6950410	Tripler Ar Med Cen	
99	99	Civilian, unknown	